REMARKS

Applicants respectfully traverse and request reconsideration.

Claims 21, 2, 3, 5 and 6 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,295,461 (Brown). Claim 21 has been amended to include what is believed to be inherent subject matter indicating that the method is performed by a graphics processing unit. The method requires, among other things, the comparing, by the graphics processing unit, each of a plurality of draw packets to a bounding volume object, wherein the bounding volume object is a low resolution geometric representation of a specific object identified as geometry whose visibility status is desired and for each of the plurality of draw packets that are deemed potentially visible based on the comparison, electronically rendering, by the graphics processing unit, one or more draw packets deemed potentially visible. The office action alleges that this subject matter is taught in the Brown reference in col. 7, lns. 13-25.

However, the Brown reference teaches a different structure and operation from that claimed. For example, the "visibility flag" described in Brown in the cited portion is set by the mechanism 112 sensing or detecting "communication of data from the rendering pipeline 106 to the frame buffer for display" (col. 6, lns. 50-57) (emphasis added). Accordingly, there is no comparison of draw packets to a bounding volume object as claimed nor deeming draw packets as potentially visible based on the comparison. Instead, the visibility flag is only set after the object has already been rendered. This is determined by detecting a display write to the frame buffer for display. In describing the value in this operation, the reference goes on to state that this may be beneficial because a primitive that is already filled in a first pass may have its visibility flag checked so that if the application wishes to perform a subsequent graphics call for the same primitive, such as to perform edging or other graphics functions, the status of the visibility flag indicates that the primitive was displayed or not displayed. In addition, the

reference describes that it is the software developer that must take the operation into account in order to suitably segment the application.

Applicants claim a different approach wherein visibility status is not determined based on an already rendered object or frame buffer display write as taught by the cited portions of Brown, but instead is done by comparing each of a plurality of draw packets to a bounding volume object that is a low resolution geometric representation of a specific object identified as a geometry whose visibility status is desired. In addition, a potential visibility indication is provided.

In addition, the office action alleges that the same cited portion of col. 7, lns. 13-25 allegedly teaches that draw packets are deemed potentially visible based on the comparison and electronically rendering one or more of the draw packets deemed potentially visible. However, no packet level determination appears to be done and in fact, the cited portion actually refers to an object that is determined to be "completely invisible". In contrast, the claim requires a visibility indication wherein the draw packet is deemed at least potentially visible. For one or more of the above reasons, the Brown reference fails to teach the claimed subject matter and the claims should be passed to allowance.

Applicants also respectfully reassert the relevant remarks made above with respect to claim 11. Accordingly, this claim is also in condition for allowance.

The dependent claims add additional novel and non-obvious subject matter.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Brown as applied to claim 3 above and further in view of "ARB_occlusion_query" by R. Cunniff, M. Craighead, D. Ginsburg, K. Lefebvre, B. Licea-Kane, and N. Triantos (Cunniff).

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Applicants respectfully reassert the relevant remarks made above and as such, this claim is also in condition for allowance.

Claims 11-16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Brown in view of "Designing a PC Game Engine" by L. Bishop, D. Eberly, T. Whitted, M. Finch and M. Shantz (Bishop). Applicants respectfully reassert the relevant remarks made above and as such, these claims are also in condition for allowance.

The dependent claims add additional novel and non-obvious subject matter.

Accordingly, Applicants respectfully submit that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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